1. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-4 - 7x \le \frac{-60x + 3}{9} < 9 - 8x$$

A. $(-\infty, a] \cup (b, \infty)$, where $a \in [10.5, 18.75]$ and $b \in [-7.5, -6]$

B. $(-\infty, a) \cup [b, \infty)$, where $a \in [9, 15]$ and $b \in [-7.5, -4.5]$

C. $(a, b]$, where $a \in [10.5, 13.5]$ and $b \in [-7.5, -6]$

D. $[a, b)$, where $a \in [8.25, 14.25]$ and $b \in [-8.25, -3.75]$

E. None of the above.

2. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{3}{2} - \frac{7}{4}x \ge \frac{6}{6}x - \frac{9}{7}$$

A. $[a, \infty)$, where $a \in [-2.25, 0]$

B. $(-\infty, a]$, where $a \in [0, 3.75]$

C. $[a, \infty)$, where $a \in [-0.75, 2.25]$

D. $(-\infty, a]$, where $a \in [-2.25, 0]$

E. None of the above.

3. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{-10}{5} - \frac{4}{9}x > \frac{-3}{3}x - \frac{8}{7}$$

A. $(-\infty, a)$, where $a \in [0, 4.5]$

B. (a, ∞), where $a \in [0.75, 3.75]$

C. $(-\infty, a)$, where $a \in [-2.25, 0.75]$

D. (a, ∞), where $a \in [-5.25, 0]$

E. None of the above.

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4. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

No more than 8 units from the number 5.

A. $(-\infty, -3) \cup (13, \infty)$

B. $(-\infty, -3] \cup [13, \infty)$

C. $(-3, 13)$

D. $[-3, 13]$

E. None of the above

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5. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$5 + 6x > 8x \text{ or } 9 + 8x < 9x$$

A. $(-\infty, a] \cup [b, \infty),$ where $a \in [-0.75, 6]$ and $b \in [6, 9.75]$

B. $(-\infty, a) \cup (b, \infty),$ where $a \in [-10.5, -8.25]$ and $b \in [-4.5, 0]$

C. $(-\infty, a) \cup (b, \infty),$ where $a \in [-0.75, 3]$ and $b \in [4.5, 9.75]$

D. $(-\infty, a] \cup [b, \infty),$ where $a \in [-10.5, -6]$ and $b \in [-5.25, -1.5]$

E. $(-\infty, \infty)$

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6. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

No less than 6 units from the number -7.

A. $(-\infty, -13) \cup (-1, \infty)$

B. $(-13, -1)$

C. $[-13, -1]$

    D. $(-\infty, -13] \cup [-1, \infty)$

    E. None of the above

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7. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-6 + 3x \leq \frac{12x - 6}{3} < 9 - 4x$$

    A. $[a, b)$, where $a \in [-10.5, 3.75]$ and $b \in [0, 5.25]$

    B. $(a, b]$, where $a \in [-6.75, -2.25]$ and $b \in [0.75, 4.5]$

    C. $(-\infty, a] \cup (b, \infty)$, where $a \in [-7.5, 2.25]$ and $b \in [0, 5.25]$

    D. $(-\infty, a) \cup [b, \infty)$, where $a \in [-5.25, -1.5]$ and $b \in [0.97, 1.95]$

    E. None of the above.

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8. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$5x - 4 \leq 10x - 6$$

    A. $(-\infty, a]$, where $a \in [-0.66, 0.16]$

    B. $[a, \infty)$, where $a \in [0.16, 1.52]$

    C. $[a, \infty)$, where $a \in [-1.1, -0.18]$

    D. $(-\infty, a]$, where $a \in [0.27, 2.08]$

    E. None of the above.

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9. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$8x + 8 \geq 10x - 10$$

    A. $(-\infty, a]$, where $a \in [-14, -3]$

B. $[a, \infty)$, where $a \in [-9, -4]$

C. $(-\infty, a]$, where $a \in [9, 10]$

D. $[a, \infty)$, where $a \in [8, 10]$

E. None of the above.

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10. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-6 + 9x > 12x \text{ or } 6 + 5x < 7x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-3.6, -2.62]$ and $b \in [1.3, 2.5]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-2.56, -1.27]$ and $b \in [2.85, 3.9]$

C. $(-\infty, a] \cup [b, \infty)$, where $a \in [-2.7, -1.57]$ and $b \in [2.39, 4.02]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-3.4, -2.6]$ and $b \in [0.53, 2.55]$

E. $(-\infty, \infty)$